

# Physician Opinions About Continuing Education Programs

## Highlights of Findings in Part II of a Survey in California

*A Socio-Economic Report of the Bureau of Research  
and Planning, California Medical Association*

THE SECOND REPORT of findings of the Questionnaire Survey of Continuing Medical Education, conducted under a Regional Medical Programs grant,\* contains further analyses of data provided by 2,600 California physicians who completed questionnaires in the latter part of 1967. A Socio-Economic Report summarizing the first findings of the study (Vol. VIII, No. 7, June 1968) provided the initial analyses of data for most questions contained in the survey form, along with details concerning the methodology employed in conducting the study. Analysis of data contained in the Part I report suggested possibilities of further relationships among the answers to various questions, as well as additional relationships pertaining to characteristics of respondents. Furthermore, a full analysis of results required the correlation of responses to several questions with individual medical specialties, which was not done in earlier tabulations. Finally, information concerning three of the nine questions contained in the survey form had not been tabulated for inclusion in Part I.

---

The first article, *A Survey of Continuing Medical Education for Physicians, Selected Findings Based on 2,600 Responses to Questionnaires*, appeared in CALIFORNIA MEDICINE, 109:245-251, Sept. 1968.

\*This study of continuing medical education conducted by the Bureau of Research and Planning on behalf of the Committee on Continuing Education under the auspices of the California Medical Education and Research Foundation, is being funded through a grant from the National Institutes of Health to the California Committee on Regional Medical Programs. Copies of the complete Part II report are available in limited quantities; address requests to the Division of Socio-Economics and Research, California Medical Association, 693 Sutter Street, San Francisco 94102.

Reprint requests to: CMA Bureau of Research and Planning, 693 Sutter Street, San Francisco 94102.

These three aspects of the data provide the content for Part II.

The significance of this portion of the findings is that they provide more specific and refined information to aid in planning programs of continuing education, based upon the perceptions of physicians in diverse specialties. Discussion in the full report clearly demonstrates the importance of utilizing modalities of continuing education to which physicians feel they can respond and which provide the most effective means of transmitting information which they can apply in their specific practices. The data suggest employing a variable approach, directed to the perceived requirements of each specialty, rather than one which is based upon the "umbrella" technique under which every specialty is covered.

### Highlights of Findings\*

- Physicians in rural areas are generally more satisfied with programs of continuing education than are physicians in urban areas, regardless of their specialties. Variations in levels of satisfaction also exist in different parts of the state.
- There are some marked differences in how physicians in different specialties evaluate various modalities used to transmit medical information.
- Programs presented on weekends generally appear to be more successful and easier to attend

---

\*Includes data from the full report which may not be found in this summary.

than programs given at night; only about one physician in twelve considers it difficult to attend programs given at either of these times.

- Physicians in group medical practice are only slightly better able to attend programs than are physicians in individual practice; however, they are also somewhat less likely to find programs of interest.

- Cost prevents relatively more physicians in individual practice than in groups from attending as many programs as they would like; conversely, more respondents in group arrangements limit their attendance because of difficulties in taking time off from their practices.

- Considerable variation exists among physicians in various specialties as to how well their needs for information are being satisfied by programs currently presented. Internists, general practitioners and general surgeons appear to desire a broad range of instruction, while physicians in other specialties may require more depth in subjects relating to their own fields.

- Education need increases with number of years in practice. However, the youngest group of physicians sampled indicated a higher degree of need than did the next older group. This may suggest some gaps in the training they receive prior to entering practice.

- Respondents made a wide array of suggestions about subjects which should be given additional attention; almost half of all subjects related to disease entities, while other large blocks of answers pertained to medical specialties and to biological and preclinical sciences.

- Among specific subjects in the area of cardiovascular disease mentioned frequently were electrocardiography, anatomy of the heart, cardiac arrhythmias, employment of anticoagulant drugs, hypertension and emergency treatment of patients with cardiac arrests.

- There was sufficient repetition of specific subjects suggested by physicians in five specialties — general practice, internal medicine, obstetrics/gynecology, psychiatry and internal medicine — to warrant their suggestions being shown separately. Such suggestions can provide some further insight into program planning.

- Survey results can be used for detecting deficiencies in coverage of various subjects, as viewed by practicing physicians, which exist in specific areas of the state, and for planning programs to correct them when necessary.

## Opinions About Educational Modalities According to Medical Specialty

Detailed statistics concerning evaluations of nine instructional modalities used in the field of continuing medical education have been developed from data provided by respondents. Part I presented these evaluations for grouped medical specialties. After reviewing the grouped data, it became clear that differences in the evaluation of various modalities of instruction were apt to vary according to individual specialty, rather than by the broad groupings. This was particularly true of a miscellaneous group of specialties, comprised of such disparate fields as psychiatry, anesthesiology, and pathology. Table 1 contains data about physician evaluations of modalities for 15 individual specialties, and seek to determine whether significant differences exist among them.

It also indicates mean ratings or responses by physicians in each medical specialty to each of the nine modalities listed on the questionnaire and presents a broad overview of the differences which exist.

Lastly, it provides insight into how modalities are viewed by physicians and an overview of the relative merits of all nine modalities as perceived by physicians in each individual specialty. Most details about individual modalities become immediately apparent from the table; however, a few remarks are in order about each specialty and how its member physicians view all of the modalities.

**Dermatologists** find textbooks and journals and two- or three-day symposia most valuable in fulfilling their needs for medical education. Grand rounds are also rated relatively high, as are bedside postgraduate courses. Medium- to long-term in-service programs, Audio-Digest tapes, and radio and television conferences rate relatively low.

**Internists** prefer two- or three-day symposia, rating them somewhat above the next-ranked modality of textbooks and journals. They also show a preference for grand rounds and for long-term traineeships. Both radio and televised courses are considered of marginal value.

**Pediatricians** rated short symposia considerably above any other modality. Reading materials were tied for second place with long-term traineeships; both modalities were followed closely on the rating scale by one- to three-week programs and grand rounds. Radio conferences were rated well below other modalities, as were televised instructions.

TABLE 1—Mean Rating\* of Selected Modalities Employed to Transmit Medical Information, by Individual Specialty.  
(Scale: 1 = least valuable, 4 = most valuable)

Specialty	Modality								
	2 or 3 day Symposia	Textbooks, journals, etc.	3-6 month traineeships in teaching institutions	Hospital grand rounds and clinics	Bedside postgraduate courses in medical schools	1-3 week in-service programs	Audio-digest tapes	Hospital TV conferences from medical schools	Hospital radio conferences from medical schools
Dermatology	3.2	3.3	2.3	2.9	2.7	2.4	1.7	2.2	1.4
Internal Medicine	3.4	3.1	2.7	2.8	2.5	2.3	2.4	1.9	1.5
Pediatrics	3.4	2.9	2.9	2.8	2.4	2.8	2.2	1.9	1.4
General Surgery	3.3	3.3	2.7	2.9	2.4	2.7	2.1	2.3	1.5
Obstetrics-Gynecology	3.6	3.0	1.9	2.4	2.4	2.2	2.5	2.0	1.6
Ophthalmology,	3.7	3.2	2.6	2.3	2.0	2.1	2.8	1.9	1.4
Orthopedic Surgery	3.5	3.3	2.7	2.6	2.5	2.4	2.3	2.1	1.7
Otolaryngology	3.3	2.7	3.1	2.6	2.8	2.9	1.4	2.1	1.6
Urology	3.5	3.4	2.4	2.5	1.7	3.0	1.9	1.8	1.6
Other surgery	3.7	3.6	3.0	2.4	2.3	1.8	1.9	1.6	1.3
Anesthesiology	3.4	3.2	2.3	2.0	1.8	1.7	2.9	2.1	1.4
Pathology	3.7	3.3	2.7	2.3	2.2	2.4	2.5	2.0	1.6
Radiology	3.5	3.3	3.2	2.4	2.1	3.2	2.1	2.0	1.5
Psychiatry	3.3	3.1	3.2	2.4	2.5	2.7	2.1	2.2	1.6
Neurology	3.4	3.2	3.7	2.8	3.0	2.9	1.7	1.7	1.4
Other	3.9	3.3	2.4	2.4	2.5	1.9	2.3	2.6	1.8
General Practice	3.5	2.7	2.5	2.6	2.8	2.5	2.4	2.5	1.9
Total	3.5	3.0	2.7	2.6	2.5	2.5	2.3	2.2	1.6

\*Means calculated excluding modalities with which respondents were not familiar.

General surgeons ranked reading and short symposia first and also gave a relatively high rating to grand rounds. Intermediate to long-term programs rated next. Television conferences rated relatively well among general surgeons; radio conferences did not.

Obstetrician-gynecologists preferred two- or three-day symposia by a substantial margin over the next highest rated modality, reading materials. Audio-Digest tapes were ranked well by physicians in this specialty. Intermediate and long-term programs and grand rounds were rated relatively low. As among other physicians, radio conferences received a low rating.

Ophthalmologists also preferred short symposia by a wide margin; however, both this modality and textbooks and journals received ratings which were, on the average, higher than the ratings given them by all physicians. Audio-Digest tapes are third in popularity, as compared with a rating of eighth among all physicians. Bedside courses, short in-service programs and grand rounds rated relatively low among physicians in this specialty.

Orthopedists appear able to find something of value in most modalities, giving ratings which are only slightly different from the ratings given by all physicians. Although short symposia are rated highest, reading materials were ranked only slightly lower. They find radio conferences somewhat more rewarding than do most physicians.

Otolaryngologists present a rating picture which is somewhat difficult to interpret. Almost as well-rated as short symposia are long-term traineeships. Also highly regarded are one- to three-week in-service programs and bedside courses in medical schools. Reading rates relatively poorly, as do Audio-Digest tapes. In general, the types of instruction most highly regarded by physicians in this specialty are those usually given in a formal manner in an academic setting.

Urologists rank reading materials almost as highly as they do short symposia. Both modalities received very high ratings. Also well-rated were one- to three-week in-service programs. Among the many modalities which these physicians consider of limited effectiveness are bedside courses, long-term traineeships, television conferences, and Audio-Digest tapes.

Other surgeons (colon and rectal surgeons, neurosurgeons, plastic surgeons, and thoracic surgeons) while probably displaying some internal differences which cannot be further refined from the available data, show some patterns in the way they rate modalities which suggest that their impressions do, in fact, differ from those of other physicians. Although short symposia and reading material are the two highest rated modalities, with the latter rated far higher than by physicians in other specialties, long-term traineeships in teaching institutions also received high ratings. Short in-

service programs were ranked relatively low by these specialists, as were both television and radio instruction.

Anesthesiologists, as most other physicians, rated short symposia at the top of the scale, followed closely by textbooks and journals. Audio-Digest tapes received particularly high ratings—the best, in fact, among all the listed specialty groups. Ranked especially low on the value scale were bedside courses and grand rounds and clinics, as well as short in-service programs.

Pathologists rely heavily on two- or three-day symposia for continuing medical education and somewhat less on reading material. Both of these modalities, however, were rated considerably above any other. Understandably, bedside courses and grand rounds were considered somewhat less valuable by them than by physicians in other specialties.

Radiologists, as others, gave high ratings to the two most familiar modalities, two- or three-day symposia and reading materials. However, exceptionally high effectiveness ratings were also attributed to extended traineeships and to one- to three-week in-service programs.

### Physicians Prefer Weekend Programs To Evening Programs

The questionnaire inquired about the level of agreement of physicians with two statements concerning ability to attend relatively short programs presented at different times. The statements were the following: (1) Courses held on weekends are relatively easy to attend, and (2) Evening programs are useful and relatively easy to attend.

Although they are not entirely comparable, since the statement concerning evening programs deals with utility as well as ease of attendance, a cross-tabulation of levels of agreement with the two statements provides some insight into physician preferences for programs presented evenings or weekends. Table 2 is a recapitulation of this cross-tabulation. Estimated totals are of all physicians in private practice and laboratory medicine in California, expanded from data supplied by 2,600 respondents to a random sample of 4,500 physicians.\*

The largest single group of physicians indicated that it is relatively easy to attend programs given either evenings or weekends by checking that they

**TABLE 2.—Relative Ease With Which Physicians Can Attend Programs Presented Evenings and Weekends: Estimated Total Numbers of Physicians in California.**

Measures of ability to attend	Number	Percent
Little problem attending, regardless of timing . . . . .	8,854	36.5
Easier to attend weekends than evenings . . . . .	8,374	34.6
Easier to attend evenings than weekends . . . . .	3,795	15.6
Relatively difficult any time . . . . .	2,065	8.5
Indifferent, regardless of time . . . . .	1,164	4.8
Total . . . . .	24,252	100.0

generally agree with both statements. Over one-third of physicians (36.5 percent) fit into this group. Another third (34.6 percent) indicated a preference for weekends by showing some measure of agreement with the statement about weekends and either indifference or disagreement with the statement about evening programs. Less than half this many physicians (15.6 percent of the total) implied that they prefer programs given in the evening to those given on weekends.

The remaining 13.3 percent of physicians are divided into two groups. The larger group disagreed with both statements denoting their difficulty in attending programs regardless of whether they are given evenings or weekends. The smaller group, accounting for just 4.8 percent of all physicians, indicated indifference to both statements. Although it would be logical to assume that this group is comprised of physicians who seldom attend programs, data not included in this report indicate that this is not necessarily the case. Other responses show that this indifference does not generally imply lack of interest in programs, but may rather demonstrate frustration in taking time out from their practices.

Summarizing these data, then, the same subject should be expected to draw a higher level of attendance if it were given on a weekend than in the evening. While only about half of all physicians might find it "easy" to attend a program in the evening, slightly more than 70 percent find it "easy" on weekends.

### Subjects Needing More Emphasis Vary by Geography

Table 3 enumerates general subject areas which physicians think are deserving of additional emphasis in programs of continuing medical education, according to geographic areas where they practice. This table reveals the opinions of phy-

\*Data showing sample design, response rates and county groupings may be found in full report.

TABLE 3.—Subjects Which Physicians Think Warrant Additional Emphasis in Continuing Education Programs: Estimated Percents of Physicians by Geographic Area

Geographic area	Cancer and cancer chemotherapy	Musculoskeletal system diseases	Digestive system diseases	Respiratory diseases	Genito-urinary diseases	Endocrine gland diseases	Heart diseases	Vascular diseases	Other subjects re: Cardio-vascular system or diseases	Nervous system diseases	Nutritional diseases	Electro-cardiography	Psychiatry and Psychology	Physiology	Accidents and emergency care	Average number of suggestions per physician
<b>Metropolitan areas:</b>																
San Francisco Bay Area	8.9	2.0	1.5	1.3	0.1	3.9	8.4	10.8	7.4	1.2	0.5	3.9	4.9	4.7	2.6	.52
San Jose	9.9	2.8	..	..	..	4.2	16.9	7.0	4.2	2.8	1.4	5.6	5.6	2.8	..	.57
Sacramento	13.5	0.6	..	2.7	2.5	0.8	8.4	8.3	6.7	0.2	2.1	0.4	6.5	8.9	0.6	.63
Stockton	23.0	2.1	..	2.1	..	..	13.0	16.7	4.2	..	2.1	2.1	4.2	..	4.2	.76
Fresno	22.7	..	4.5	..	2.3	4.5	6.8	4.5	..	..	..	4.5	..	9.1	2.3	.75
Los Angeles-Long Beach	5.1	0.9	1.8	1.8	2.7	1.8	8.2	7.7	1.8	0.9	1.8	4.6	5.0	10.5	2.2	.94
San Diego	4.4	0.9	0.9	3.5	4.4	0.9	7.9	10.6	6.2	1.8	0.9	6.1	7.9	4.4	0.9	.87
San Bernardino-Riverside-Ontario	3.3	2.0	3.2	..	1.6	4.0	10.3	6.5	4.3	0.8	2.8	3.3	6.8	2.8	1.6	.84
Bakersfield	8.2	5.5	1.4	1.4	1.4	5.5	5.5	12.3	2.8	4.1	2.7	4.1	2.7	4.1	..	1.18
Santa Barbara	8.0	..	..	..	2.0	2.0	6.0	6.0	4.0	..	2.0	2.0	4.0	..	4.0	.71
Santa Ana-Garden Grove	10.0	3.3	..	..	..	2.2	7.8	11.1	6.7	2.2	4.4	3.3	2.2	7.8	..	.74
Vallejo-Napa	10.5	2.6	1.3	1.3	2.6	3.9	5.3	13.2	3.9	1.3	1.3	3.9	2.6	6.6	1.3	.61
Ventura-Oxnard	4.3	..	4.3	4.3	..	..	13.0	6.5	8.7	..	6.5	4.3	4.3	2.2	2.2	.68
Monterey-Salinas*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.56
<b>Non-Metropolitan areas:</b>																
North Coast	5.5	1.4	..	..	..	..	13.6	6.8	4.1	..	..	4.1	6.1	2.7	2.1	.70
North Central Coast	9.1	3.6	1.8	..	..	1.8	16.4	3.6	..	1.8	..	..	1.8	9.1	3.6	.83
South Central Coast	8.2	..	..	..	..	..	12.4	14.1	4.5	..	1.0	5.8	..	5.2	2.4	.87
Sacramento Valley	8.3	0.7	..	3.0	2.0	..	8.7	9.3	2.3	0.7	2.3	2.7	..	5.7	1.3	1.16
North San Joaquin Valley	11.2	4.2	3.7	0.9	2.8	1.4	11.2	9.8	2.3	0.9	..	0.9	..	2.3	0.9	.73
South San Joaquin Valley	4.6	..	1.5	..	..	..	6.2	7.7	4.6	..	..	7.7	..	4.6	1.5	.67
Imperial Valley†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sierras	9.6	..	..	..	1.0	1.0	10.6	18.8	1.0	..	..	6.7	..	..	4.3	.66

\*Insufficient response.

†Insufficient number in sample.

sicians in specific regions as to deficiencies which exist in the subject matter which they are being presented.

The table indicates 15 major subject areas which were often mentioned by physicians as warranting additional emphasis in programs of continuing education. Some decisions as to relative needs can be made by analyzing the inter-area differences in percents of physicians who suggested particular subjects. The last column in the table indicates the average total number of suggestions made by physicians in each area. These figures can serve as a general measure of need for additional continuing education programs of all types. Areas in which many suggestions were made can be assumed to be those in which many subjects are insufficiently covered, while those with few suggestions are those in which needs are being adequately met.

The need in the Bay Area relates particularly to the cardiovascular disease categories. It appears that the vascular diseases are a subject of more widespread interest than are diseases relating to the heart. Specific areas of interest not shown in the table were in the gastrointestinal system, arthritis and rheumatism, water-electrolyte balance, and endocrinology. In general, the relatively low volume of suggestions made implies a high level of satisfaction with the range of subjects covered by existing programs.

Diseases of the heart appear to be more important to physicians in the San Jose area than do diseases of the vascular system. Electrocardiography was also mentioned by an above average proportion. The two areas of nervous system diseases and psychiatry and psychology also were mentioned relatively frequently. The average total number of suggestions made was relatively low.

Physicians in Sacramento appeared to demonstrate somewhat more interest in cancer, somewhat less in cardiovascular disease. They also showed an interest in psychiatry and psychology and in physiology. Although not shown in the table, endocrinology was noted by Sacramento physicians as a subject of interest.

Stockton physicians indicated considerable interest in the subject of cancer. Almost one in four suggested that cancer should be given additional emphasis. There also appears to be a somewhat above-average amount of interest in the general subject of cardiovascular disease.

Fresno physicians demonstrated a similar pattern; however, the amount of interest in cardiovascular disease was less prevalent. The number of responses in both these geographic areas limits the reliability of these data somewhat.

Physicians in the Los Angeles-Long Beach Metropolitan Area indicated interest in a wide variety of subjects, many of which are not included in the table. Among those not included were obesity, water-electrolyte balance, psychosomatic medicine, biochemistry, geriatrics, and endocrinology. Among those subjects listed in the table, there is relatively little feeling of need for more courses about cancer and only an average amount of interest in cardiovascular disease. Nevertheless, it is estimated that approximately 1,500 physicians in the county are of the opinion that subjects relating to cardiovascular disease need more emphasis. A large number of physicians in Los Angeles are of the opinion that topics generally classified under the subject of physiology are not being covered adequately.

There is relatively little interest in additional information about cancer in San Diego. Vascular diseases appear to be somewhat more in need of attention than do diseases of the heart. Programs in electrocardiography, however, were specified by a large number of physicians in San Diego. Also frequently suggested were psychiatry and psychology, respiratory diseases, and genitourinary diseases. Although not shown in the table, physicians in San Diego suggested that angiography and pharmacology would constitute topics of particular interest.

Little pattern is shown by physicians in the San Bernardino-Riverside-Ontario area. There is virtually no interest in further instruction about cancer, and less than average interest in cardiovascular diseases. Some interest was shown in further in-

struction in the areas of psychiatry and psychology. The relatively high volume of suggestions, showing little repetition, may indicate a broad pattern of needs.

The needs of physicians in Bakersfield also appear to be varied. While showing the highest average number of suggestions in any area, the suggestions are spread among many subjects. Somewhat above-average percentages of physicians suggested additional emphasis in vascular diseases, musculoskeletal system diseases, endocrine gland diseases, and nervous system diseases. The volume of responses from this area limits the reliability of these figures; they should be used only as broad indicators of educational need.

The pattern shown in Santa Barbara reveals little. Relative to other parts of the state, the interest in additional instruction about cancer is near the average; interest in cardiovascular diseases is considerably below average. No other meaningful information is shown, based on a relatively small number of responses.

Physicians in the Anaheim-Santa Ana-Garden Grove Metropolitan Area indicated an above-average amount of interest in diverse subjects such as musculoskeletal diseases and nutritional diseases, as well as unlisted specific subjects such as rheumatism, arthritis and obesity. Just one in ten physicians in this area was of the opinion that more attention should be given to the subject of cancer. There exists considerably more interest in further information about vascular diseases than about heart diseases.

A relatively large proportion of physicians in the Vallejo-Napa Metropolitan Area showed interest in additional programs in vascular diseases; fewer were concerned about heart disease. The percent of the opinion that cancer is insufficiently covered was somewhat above average, as was the percent indicating an interest in endocrine gland diseases.

The low number of responses from physicians in the Ventura-Oxnard Metropolitan Area limits the degree to which these statistics can be used. Nevertheless, the data indicate that physicians in the area are of the opinion that further instruction concerning heart disease is warranted, whereas adequate attention is currently being devoted to both cancer and stroke.

The number of suggestions made by physicians in the Monterey-Salinas Metropolitan Area was also insufficient to warrant any conclusions. By

**TABLE 4.—Defined Subjects Related to Cardiovascular Disease: \* Estimated Number of Physicians Who Specified That Subject Needs Additional Emphasis**

<i>Specific Subject</i>	<i>Number of Physicians</i>
Electrocardiography	365
Cardiology	279
Anatomy of the Heart	247
Cardiac Arrhythmias	228
Anticoagulant Drugs	162
Hypertension	148
Emergency treatment of heart patients	138
Myocardial Infarct	119
Arteriosclerosis	99
Angiography	90
Resuscitation	83
Pulmonary Heart Disease	79
Pacemakers	62
Pediatric Heart Disease	60
Heart Arrest	52
Varicose Veins	48
Embolisms	43
Hematology	41
Rheumatic Heart Disease	29
Surgical treatment of Stroke patients	29
Congenital Heart Defects	24
Heart Surgery	23

\*Excludes general references to heart disease, stroke or other non-specific responses; see Table 3 for these data.

making very few suggestions, physicians in this area implied little need for additional programs.

Physicians in the north coast area indicated a higher level of interest in additional instruction in heart disease than in vascular disease. They generally feel that sufficient information about cancer is being provided. There was a somewhat above-average amount of interest, particularly when compared with that of other non-metropolitan areas, in instruction relating to psychiatry and psychology.

In the north-central coast area (Sonoma County), physicians indicated a need for further instruction in subjects related to heart disease. A number of respondents in this area also indicated an interest in programs in physiology.

Physicians in the south-central coast counties indicated particular interest in additional instruction in the area of cardiovascular diseases. In addition to numerous suggestions in these disease categories, respondents indicated an interest in further courses in electrocardiography techniques and interpretation.

In the non-metropolitan counties in the Sacramento Valley, few respondents indicated a need for additional programs in cardiovascular diseases. An above-average number specified interest in respiratory diseases, in physiology, and in nutritional diseases.

Vascular diseases and cancer were indicated as areas needing additional emphasis by a number of physicians in the North San Joaquin non-metropolitan counties. In addition, an above-average number of respondents indicated interest in further instruction about musculoskeletal and respiratory diseases.

Physicians in South San Joaquin Valley counties specified a need for additional instruction in cardiovascular diseases and in electrocardiographic technique. Few physicians in this area were interested in further instruction about cancer.

A very substantial proportion of respondents in the Sierras would like additional programs in vascular diseases. Another sizable group indicated interest in heart disease or in electrocardiography. An area of concern among physicians in these outlying counties is emergency treatment of accident victims.

### **Wanted: More Information About Cardiovascular Diseases**

Table 4 contains a listing of subjects related to cardiovascular disease. They were indicated by respondents in answer to questions asking them to specify subjects which should be given additional emphasis in programs of continuing medical education. In total, approximately 30 percent of all subjects suggested were generally related to cardiovascular diseases. It is important to note that this list excludes general references to the subject, since they can provide no assistance in focusing attention on areas of unmet physician needs.

The reader should be mindful that although the numbers of physicians in this listing appear small, they represent physicians whose opinions are sufficiently strong to have prompted them to volunteer specific answers to an open-ended question.

The most frequently mentioned individual subject in the area of cardiovascular disease was electrocardiography. It is estimated that at least 350 physicians statewide feel that this area should receive additional emphasis in continuing education programs. The next in order of frequency is the subject of cardiology. A large proportion of these suggestions came from general practitioners. Next in order of frequency were a group of suggestions that additional emphasis be given to discussions of the anatomy of the heart, without specific references to disease entities.

The single cardiovascular disease entity which was most frequently mentioned by respondents was

that of cardiac arrhythmias. It is estimated that over 200 physicians statewide feel strongly that more emphasis should be given this subject. Among other disease entities which were mentioned with some frequency were hypertension, myocardial infarct, arteriosclerosis, and pulmonary heart diseases. Several other disease entities men-

tioned less frequently are also included in the table.

Anti-coagulant drugs constituted a subject of interest to a considerable number of physicians. Among other miscellaneous topics related to cardiovascular disease and suggested by a number of respondents were the subjects of angiography, pacemakers, and hematology.

## NEW CMA RELATIVE VALUE STUDIES TO BE PUBLISHED IN SEPTEMBER

A new edition of the *Relative Value Studies* will be published by the California Medical Association in September.

The *Relative Value Studies*, or "RVS," is a complete listing of procedures performed by physicians. There are also unit values which indicate the relationship of values of services to each other.

The RVS will become effective for usage in California 1 April, 1970. It is designed to assist doctors, health insurance carriers, consumers and business to identify procedures which physicians perform. Furthermore, the edition serves as a guide to understanding the basis for charges. However, this is not a fee schedule.

The first edition of the RVS was published in 1956. Its concept has been adopted by other state medical societies and applied to voluntary health insurance and government-financed programs nationwide.

Revised by the California Medical Association's Committee on RVS, the 1969 edition is the culmination of more than two years of intensive study and consultation with experts in the health care profession.

"The content of this edition (of the RVS) reflects as completely as possible the manner in which medicine is practiced in California at this time," William H. Thompson, M.D., Chairman of the CMA Committee on RVS, said.

Major changes are: (1) expansion of the coding system from four to five digits; (2) inclusion of approximately 50 percent more procedures than in the 1964 edition; (3) introduction of the concept of "modifiers"; (4) structuring of each RVS section unit values in such a way as to make them applicable to only that individual section; and (5) reorganization of the musculoskeletal system in the Surgery Section entirely according to body system.

A system of two-digit "modifier" codes for physicians was introduced so they may easily indicate circumstances which may affect the fee charged—either up or down—for a specific procedure.

There are a number of changes in specific sections. For example, in the medicine section, physician visits have been further refined to describe more accurately their relative complexity. New subsections have been added to describe services provided in extended care facilities and in hospital emergency rooms. Also included are many diagnostic services which were formerly included in "Surgery" (such as procedures relating to the eye, ear and the cardiovascular system).

Another major revision is the listing of all vascular injections for radiology in the "Surgery" section only, with cross reference appearing in "Radiology." The "Laboratory" section, now called "Pathology," was reorganized according to the type of procedure performed rather than by the source of the specimen.

More than 20 medical specialty subcommittees and a number of individual consultants—comprising nearly 100 physicians—and representatives of the insurance industry, component medical societies and computerized billing services were consulted "in an attempt to make this edition as useful as possible," Dr. Thompson explained.

The format of the book has been improved with an edge index to make it easier to find and turn to particular sections. The subject index will be more detailed in its listing of procedures.

One copy of the 1969 RVS will be mailed about October 1 to each CMA member free of charge. Additional copies, at \$3.50 each (including tax), will be available from Six-Ninety-Three Sutter Publications, Inc., 693 Sutter Street, San Francisco 94102. Prepaid orders will be filled beginning October 1.